Virtualization exam: David Hurley

Q1.

Virtualisation is the running and simulation of hardware in a software environment. An example of virtualisation is running 2 windows desktops off a linux based machine.

Q2.

The main benefits of virtualisation is the increased efficiency in cpu usage, memory management and storage. With a virtualised desktop you can customize it much easier than with a physically desktop making it also easier to scale up and down as needed. This also means you can run multiple vms off the single server.

Q3.

A hypervision the name for a program that runs and manages the virtualisation of a Virtual machine. There are type 1 and type 2 hypervisors. Type 1 hypervisors run direction on a server without the need for an os. While type 2 hypervisiors run inside an os.

Q4.

The main difference between hard disks and SSDs is that hard disks store there data on metal disks that are read using a spool. While SSDs have no moving and all the data is store electronically. This means that SSDs are much faster than hard disks and will not wear out over time.

Q5.

RAID is the overarching name for different types of data loss prevention protocalls. RAID is needed as having no back or data loss prevention plans in an company would be foolish and reckless. Each RAID type 0 threw 6 using a different way to backup your data.

Q6.

RAID 5 is the parity bit raid. This configuration uses parity bits on the data and its backup to tell weather data is corrupted or missing.

Q7.

Q8.

Multi-core CPUs greatly improve the performance of hypervisors running virtual machines as the hypervisor can allocate each VM its own core on the cpu. Meaning increased performance for the VMs.

Q9.

Server cloning is the coping of all the setting and information on a server and cloning it.

Q10.

Traditional IT infrastructure contains quite a few challenges. One such one is the that while each desktop requires its own cpu memory and storage. Not all desktops and server will utilise them efficiently. By virtualising them you can increase efficiently while keeping costs down.

Q11.

Centralised deployment and control of VMs improves utilization because its easier to see and manage how much each vm needs in terms of cpu, storage and memory.

Q12.

By grouping hypervisors into clusters you get a range or benefits. One prominent on is that is one hypervisor fails the other ones will attempt to pick up what it was going to lose. This means that if a hypervisor fails the other one will take its vm and start it back up. The clusters also mean that you get an overview of your entire network from one place and can manage them from a single interface.